

Appln No.: 10/605,862
Amendment Dated: February 13, 2009
Reply to Office Action of December 4, 2008

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-23 (canceled)

24. (currently amended) A polymeric composition Polymeric pellets comprising a polycarbonate polymer having dispersed therein a tagging material wherein the tagging material comprises at least one organic fluorophore dye, or at least one inorganic or organometallic fluorophore, or at least one semi-conducting luminescent nanoparticle, or combination thereof, wherein the tagging material has a temperature stability of at least about 350°C and is present in a sufficient quantity such that the tagging material is detectable via a spectrofluorometer at an excitation wavelength in a range between about 100 nanometers and about 1100 nanometers.
25. (currently amended) The polymeric pellets composition in accordance with claim 24, wherein the tagging material has a temperature stability of at least about 375° C.
26. (currently amended) The polymeric pellets composition in accordance with claim 24, wherein the tagging material has a temperature stability of at least about 400° C.
27. (currently amended) The polymeric pellets composition in accordance with claim 24, wherein the at least one fluorophore dye has an excitation wavelength in a range between about 200 nanometers and about 1000 nanometers.
28. (currently amended) The polymeric pellets composition in accordance with claim 27, wherein the at least one fluorophore dye has an excitation wavelength in a range between about 250 nanometers and about 950 nanometers.

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29. (currently amended) The polymeric pellets composition in accordance with claim 24,

wherein the at least one fluorophore dye comprises perylenes.

30. (currently amended) The polymeric pellets composition in accordance with claim 29,

wherein the at least one fluorophore dye comprises anthra[2,1,9-def:6,5,10-d'e'f]diisoquinoline
1,3,8,10(2H,9H)-tetrone-2,9-bis[2,6-bis(1-methyethyl)phenyl]-5,6,12,13-tetraphenoxy
anthra[2,1,9-def:6,5,10-d'e'f]diisoquinoline-1-,3,8,10(2H,9 H)-tetrone;
2,9-bis[2,6-bis(1-methyethyl)phenyl]-5,6,12,13-tetraphenoxy, or combinations thereof.

31. (currently amended) The polymeric pellets composition in accordance with claim 24,

wherein the at least one fluorophore dye comprises a lanthanide complex.

32. (currently amended) The polymeric pellets composition in accordance with claim 24,

wherein the fluorophore comprises an anti-stokes shift dye.

33. (currently amended) The polymeric pellets composition in accordance with claim 24,

wherein the at least one semi-conducting luminescent nanoparticle comprises CdS, ZnS, Cd₃P₂, PbS, or combinations thereof.

34. (currently amended) The polymeric pellets composition in accordance with claim 24,

wherein the at least one semi-conducting luminescent nanoparticles comprises rare earth aluminates comprising strontium aluminates doped with Europium and Dysprosium.

35. (currently amended) The polymeric pellets composition in accordance with claim 24,

wherein the tagging material is present in a range between about 10⁻¹⁸ percent by weight and 2 percent by weight of the total polymer.

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36. (currently amended) The polymeric pellets composition in accordance with claim 35, wherein the tagging material is present in a range between about 10^{-15} percent by weight and about 0.5 percent by weight of total polymer.

37. (currently amended) The polymeric pellets composition in accordance with claim 36, wherein the tagging material is present in a range between about 10^{-12} percent by weight and about 0.05 percent by weight of total polymer.

38-39. (canceled)

40. (currently amended) The polymeric pellets composition in accordance with claim 24, wherein the tagging material is incorporated into the polymer by coating, admixing, blending, or copolymerization.

41. (currently amended) The polymeric pellets composition in accordance with claim 24, wherein the polymer is used in a storage media for data.

42. (currently amended) The polymeric pellets composition in accordance with claim 24 comprising a coloring material.

43. (currently amended) The polymeric pellets composition in accordance with claim 24, wherein the tagging material has a temperature stability for a time period of less than about 10 minutes.

44. (currently amended) The polymeric pellets composition in accordance with claim 24, wherein the tagging material has a temperature stability for a time period of less than about 1 minute.

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45. (currently amended) The polymeric pellets composition in accordance with claim 24, wherein the tagging material has a temperature stability for a time period of less than about 20 seconds.

46. (currently amended) A p Polycarbonate pellets comprising a perylene, wherein the perylene has a temperature stability of at least about 350° C. and is present in a range between about 10⁻¹⁸ percent by weight and about 2 percent by weight of the total polycarbonate and is detectible via a spectrofluorometer at an excitation wavelength in a range between about 100 nanometers and about 1100 nanometers.

47. (currently amended) An article said article being molded from comprising a polymeric composition wherein the polymeric composition comprises a polycarbonate polymer having dispersed therein at least one tagging material wherein the tagging material comprises at least one organic fluorophore dye, or at least one semi-conducting luminescent nanoparticle, or combination thereof, wherein the tagging material has a temperature stability of at least about 350° C. and is present in a sufficient quantity such that the tagging material is detectible via a spectrofluorometer at an excitation wavelength in a range between about 100 nanometers and about 1100 nanometers, and wherein the article is molded at a temperature of greater than 220 °C.

48. (original) The article in accordance with claim 47, wherein the tagging material has a temperature stability of at least about 375° C.

49. (original) The article in accordance with claim 47, wherein the tagging material has a temperature stability of at least about 400° C.

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50. (original) The article in accordance with claim 47, wherein the at least one fluorophore dye has an excitation wavelength in a range between about 200 nanometers and about 1000 nanometers.

51. (original) The article in accordance with claim 50, wherein the at least one fluorophore dye has an excitation wavelength in a range between about 250 nanometers and about 950 nanometers.

52. (original) The article in accordance with claim 47, wherein the at least one fluorophore dye comprises perylenes.

53. (currently amended) The article in accordance with claim 52, wherein the at least one fluorophore dye comprises anthra[2,1,9-def:6,5,10-d'e'f']diisoquinoline
1,3,8,10(2H,9H)-tetrone-2,9-bis[2,6-bis(1-methylethyl)phenyl]-5,6,12,13-tetraphenoxy
~~anthra[2,1,9-def:6,5,10-d'e'f']diisoquinoline-1-, 3,8,10(2H,9 H)-tetrone;~~
~~2,9-bis[2,6-bis(1-methylethyl)phenyl]-5,6,12,13-tetraphenoxy,~~ or combinations thereof.

54. (original) The article in accordance with claim 47, wherein at least one fluorophore dye comprises a lanthanide complex.

55. (original) The article in accordance with claim 47, wherein the fluorophore is an anti-stokes shift dye.

56. (original) The article in accordance with claim 47, wherein at least one semi-conducting luminescent nanoparticle comprises CdS, ZnS, Cd₃P₂, PbS, or combinations thereof.

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57. (original) The article in accordance with claim 47, wherein at least one semi-conducting luminescent nanoparticle comprises rare earth aluminates comprising strontium aluminates doped with Europium and Dysprosium.

58. (original) The article in accordance with claim 47, wherein the tagging material is present in a range between about 10^{-18} to about 2 percent by weight of the total polymer.

59. (original) The article in accordance with claim 58, wherein the tagging material is present in a range between about 10^{-15} to about 0.5 percent by weight of the total polymer.

60. (original) The article in accordance with claim 59, wherein the tagging material is present in a range between about 10^{-12} to about 0.05 percent by weight of the total polymer.

61-62. (canceled)

63. (original) The article in accordance with claim 47, where in the tagging material is incorporated in to the polymer by coating, admixing, blending, or copolymerization.

64. (original) The article in accordance with claim 47, wherein the polymer is used in a storage media for data.

65. (original) The article in accordance with claim 47, wherein the polymer contains a coloring material.

66. (original) The article in accordance with claim 47, wherein the tagging material has a temperature stability for a time period of less than about 10 minutes.

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67. (original) The article in accordance with claim 47, wherein the tagging material has a temperature stability for a time period of less than about 1 minute.

68. (original) The article in accordance with claim 47, wherein the tagging material has a temperature stability for a time period of less than about 20 seconds.

69. (Currently amended) A data storage medium for data comprising a polycarbonate wherein the polycarbonate comprises a perylene wherein the perylene has a temperature stability of at least about 350° C, is present in a range between about 10⁻¹⁸ percent by weight and about 2 percent by weight of the total polycarbonate, and is detectable via a spectrofluorometer at an excitation wavelength in a range between about 100 nanometers and about 1100 nanometers.

70. (Canceled)

71. (New) The data storage medium of claim 69, wherein the data storage medium is a CD, CD-R, CD-RW, DVD, DVD-R, DVD-RW, DVD+RW, DVD-RAM, or a high-density DVD.